

CLAIMS

We claim:

1. A composition comprising a bioactive compound that increases a rate of fermentation of a microorganism, wherein the bioactive compound binds to a thaumatin-like protein.
2. The composition of claim 1 wherein the bioactive compound is prepared from a plant.
3. The composition of claim 2 wherein the plant is a *poaceae*.
4. The composition of claim 2 wherein the plant is *Hordeum vulgare*.
5. The composition of claim 3 wherein the plant is extracted using a protocol comprising at least one of a step of malting, a step of mashing, a step of anion exchange chromatography, and a step of ultra-filtration.
6. The composition of claim 3 wherein the plant is extracted using a protocol comprising at least one of a step of extraction of a barley preparation in a NaCl solution, and ethanol extraction.
7. The composition of claim 1 further comprising a tocol.
8. The composition of claim 1 wherein the bioactive compound is synthetic.
9. The composition of claim 1 wherein the bioactive compound has a molecular weight of no more than 1000Da and has an UV absorption maximum of about 260nm.
10. The composition of claim 1 wherein the fermentation comprises utilization of a saccharide.
11. The composition of claim 1 wherein the microorganism is a yeast.
12. A composition comprising:

a plant seed extract, wherein the plant seed is malted and the extract is prepared from the malted plant seed using a protocol that includes an aqueous extraction step; and

wherein the extract increases a rate of fermentation in a microorganism when the extract is presented to the microorganism at a concentration effective to increase the rate of fermentation.

13. The composition of claim 12 wherein the plant seed is a *Hordeum vulgare* seed.
14. The composition of claim 12 wherein the malting is performed at a temperature between 30°C and 65°C.
15. The composition of claim 12 wherein the extraction step includes extraction with an aqueous buffer.
16. The composition of claim 12 wherein the extract has a molecular weight of no more than 1000 Da and has a UV absorption maximum at about 260nm.
17. A method of increasing a fermentation of a microorganism, comprising:

providing a bioactive compound that binds specifically to a thaumatin-like protein; and

presenting the bioactive compound to the microorganism in an amount effective to increase the fermentation of the microorganism.
18. The method of claim 17 wherein the fermentation comprises utilization of a monosaccharide.
19. The method of claim 17 wherein the microorganism is a yeast.
20. The method of claim 17 wherein the bioactive compound is prepared from *Hordeum vulgare* using a protocol comprising at least one of a step of malting, a step of mashing, a step of anion exchange chromatography, a step of salt extraction, a step of buffer extraction, and a step of ultrafiltration.